

**UNIVERSITI TEKNOLOGI MARA**

**SMART WATERING SYSTEM**

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**DIPLOMA IN ELECTRICAL  
ENGINEERING**

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## **DECLARATION**

I declare that the work in this report is my own research excepts as cited in the references. The report has not been accepted for any diploma and is not currently submitted for any other diploma.

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## **ABSTRACT**

For this project, we use 2 IC such as NE 555 Timer and inverter 7404. The NE555 IC is an integrated circuit (chip) used in a variety of timer, pulse generation, and oscillator applications. The NE555 can be used to provide time delays, as an oscillator, and as a flip-flop element. Derivatives provide up to four timing circuits in one package.. An inverter 7404 circuit outputs a voltage representing the opposite logic-level to its input. A relay is an electrically operated switch. Many relays use an electromagnet to mechanically operate a switch, but other operating principles are also used, such as solid-state relays. Relays are used where it is necessary to control a circuit by a low-power signal or where several circuits must be controlled by one signal.

## **ABSTRAK**

Untuk projek ini, kami menggunakan 2 IC seperti NE 555 dan 74LS04. The NE555 IC adalah litar bersepadu (chip) yang digunakan dalam pelbagai pemasa, generasi nadi. NE555 ini boleh digunakan untuk menyediakan menunda masa, sebagai oscillator, dan sebagai elemen flip-flop. Derivatif menyediakan sehingga empat litar masa dalam satu pakej .. Satu litar 74LS04 output voltan logik mewakili peringkat yang bertentangan dengan input. Geganti adalah satu suis elektrik dikendalikan. Banyak menggunakan geganti elektromagnet untuk beroperasi secara mekanikal suis, tetapi prinsip-prinsip operasi lain juga digunakan, seperti geganti keadaan pepejal. Geganti digunakan di mana ia adalah perlu untuk mengawal litar oleh isyarat berkuasa rendah atau di mana beberapa litar perlu dikawal oleh satu isyarat.

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